

Qn -1 Explanation:

- Statement 1 is **incorrect** because urban farming is not limited to private rooftops. It includes various spaces like vacant lots, community gardens, vertical farms, and even urban greenhouses.
- Statement 2 is **correct**. Urban farming promotes food security by allowing cities to produce fresh and local food, reducing dependence on external food sources.
- Statement 3 is **correct**. Urban farming can mitigate the urban heat island effect by increasing vegetation cover, which cools the air through evapotranspiration and provides shade.

Qn-2 Explanation:

- Statement 1 is correct: Agriculture 4.0 involves the use of advanced technologies like **Artificial Intelligence (AI)**, **Internet of Things (IoT)**, **robotics**, and **data analytics** to transform farming practices.
- Statement 2 is correct: **Precision agriculture** is a major part of Agriculture 4.0, focusing on optimizing the use of resources to increase efficiency and sustainability.
- Statement 3 is incorrect: Agriculture 4.0 does not **ignore traditional practices** but rather integrates modern technologies to enhance productivity, resilience, and sustainability in farming.

Qn- 3 (a)

A recent example of urban farming gaining prominence in India is the "**Grow Your Own Food**" initiative launched by the government. This campaign encourages citizens to cultivate their own food, especially during the COVID-19 pandemic, to ensure food security and promote self-sufficiency.

Qn- 4

Answer: (a) 1 and 2 only

Explanation:

- **Statement 1** is correct: IN-SPACE was created to promote private sector participation in India's space activities by providing a regulatory and promotional framework.
- **Statement 2** is correct: IN-SPACE is an autonomous body functioning under the **Department of Space**, intended to act as a bridge between ISRO and private companies.
- **Statement 3** is incorrect: While IN-SPACE regulates and promotes private sector activities, it is not directly responsible for developing any satellite launch vehicle; that responsibility lies with private companies and ISRO.

Qn- 5

Answer: (B) 2 and 3 only

Explanation:

- **Statement 1 is incorrect:** The IPEF is primarily an economic initiative, not a security framework. It focuses on enhancing economic cooperation, particularly in trade, supply chain resilience, and climate goals.
- **Statement 2 is correct:** IPEF is structured around four pillars: Trade, Supply Chains, Clean Economy, and Fair Economy (taxation and anti-corruption).
- **Statement 3 is correct:** India is indeed part of the IPEF but has opted out of the trade pillar discussions due to concerns about potential binding commitments and its impact on domestic industries.